CHAPTER Env-Wt 600 COASTAL LANDS AND TIDAL WATERS/WETLANDS

PART Env-Wt 601 PURPOSE; APPLICABILITY; RESOLUTION OF CONFLICTS; INCORPORATED DEFINITIONS

Env-Wt 601.01 Purpose. The purpose of this chapter is to protect the public trust, public health and safety, and the natural resource functions of New Hampshire's coastal lands and tidal waters/wetlands, and to preserve the integrity of such areas, by establishing requirements for resource analysis, resource management, site alteration, and design and construction of structures, in order to preserve the productive and protective functions of this resource area and prevent unreasonable encroachment on surface waters of the state.

Env-Wt 601.02 Applicability and Intent.

(a) This chapter shall apply in addition to all applicable provisions of Env-Wt 300, Env-Wt 400, and Env-Wt 700 through Env-Wt 900 to any dredging, filling, or construction activities in coastal lands or tidal waters/wetlands.

(b) This chapter is intended to implement and complement any applicable federal requirements, such as the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1465 (CZMA).

Env-Wt 601.03 Resolution of Conflicts. If the requirements of this chapter conflict with any other applicable requirements, whether in subtitle Env-Wt or in any local, state, or federal ordinance, rule, or regulation, the requirements that are more protective of the resource being impacted shall apply.

Env-Wt 601.04 Incorporated Definitions. Any term used in this chapter that is not defined herein but is defined in Env-Wt 100 shall have the meaning established in Env-Wt 100.

PART Env-Wt 602 DEFINITIONS

Env-Wt 602.01 "Accessory structure" means a structure on the same lot with, and customarily incidental and subordinate to, the primary structure. The term includes paths, driveways, patios, any other improved surface, pump houses, gazebos, woodsheds, garages, and other outbuildings.

Env-Wt 602.02 "Back dune" means the secondary complex of ridges or mounds of sand that form from continued wind-blown sand transport through breaches in the fore dune and across the dune slack area, typically developing adjacent to a bordering surface water or wetland.

Env-Wt 602.03 "Beach nourishment" means replenishment of material lost from natural sand beaches due to changes in currents, storm surge, and coastal erosion.

Env-Wt 602.04 "Coastal areas" means coastal lands and tidal waters/wetlands, alone or in any combination.

Env-Wt 602.05 "Coastal erosion" means a geological process that involves the breakdown and removal of material along shorelines via the movement of water and wind, typically occurring slowly over an extended period of time but able to occur suddenly due to events such as landslides and extreme storm events.

Env-Wt 602.06 "Coastal functional assessment (CFA)" means an evaluation of the natural resource assets in an area that would be impacted by a proposed project, including their identity and vulnerabilities, and recommendations to protect the assets during and as a result of the project.

Env-Wt 602.07 "Coastal hazards" means natural phenomena in coastal areas, such as sea level rise, coastal storms, hurricanes, flooding, and erosion that occurs rapidly in a single event or gradually, that have the potential to damage property including infrastructure, degrade the environment including habitat displacement, and threaten human life or safety.

Env-Wt 602.08 "Coastal lands" means tidal beaches, tidal flats, tidal shorelines, tidal buffer zones, and sand dunes, alone or in any combination.

**NOTE:** All cross-references subject to verification/correction.

Env-Wt 602.09 "Commercial tidal dock" means a docking structure in tidal waters/wetlands that is associated with a marina, restaurant, business, or other commercial entity. The three types of commercial tidal docks are access points for transient public use, working waterfronts, and marinas.

Env-Wt 602.10 "Developed upland" means an upland area on a lot within the tidal buffer zone where:

(a) The natural soil and vegetation characteristics on more than 50% of the lot have been legally altered and have not returned to a natural state; and

(b) At least 2 of the following are true:

(1) The lot has legally been filled or excavated in whole or in part, whether prior to jurisdiction or pursuant to a permit or other authorization;

(2) The lot contains at least one paved or graded area that is, has been, or will be used for vehicular parking or traffic;

(3) One or more residential or commercial buildings has been built on the lot; or

(4) Residentially- or commercially-developed lots abut at least 2 sides of the lot.

Env-Wt 602.11 "Dredge prism" means a 3-dimensional geometric space depicting the volume of sediments to be dredged.

Env-Wt 602.12 "Dune slack area" means the generally flat expanse of dune that develops as a result of breaches in the fore dune that allow deposition of overwash sand to occur and disperse horizontally. The term includes mid-dune and inter-dune.

Env-Wt 602.13 "Dune vegetation" means vegetation that is commonly found in sand dunes, including but not limited to ammophila breviligulata (American Beach Grass), arenaria peploides (Seabeach Sandwort), artemesia stellarina (Dusty Miller), euphorbia polygonifolia (Seaside Spurge), hudsonia tomentosa (Beach Heather), hudsonia ericoides (Beach Heather), lathyrus japonica (Beach Pea), myrica pennsylvanica (Bayberry), prunus maritima (Beach Plum), and rosa rugosa (Salt Spray Rose). The term includes sand dune vegetation.

Env-Wt 602.14 "Extraordinary seaweed event" means the deposition of a significantly higher than typical amount of seaweed, usually greater than 2 feet in depth, on a beach by the incoming tide, that requires the use of heavy equipment, such as a front end loader, to remove.

Env-Wt 602.15 "Federal navigation project (FNP)" means a project, including any resulting structure or feature, that has been specifically authorized by the U.S. Congress in federal enactment, such as the River and Harbor Act or the Flood Control Act of 1965. The term includes project undertaken by the U.S. Army Corps of Engineers and projects undertaken by others but adopted as an FNP.

Env-Wt 602.16 "Fertilizer" means any substance, other than limestone, that contains any recognized plant nutrient and is designed or intended for use in promoting plant growth or health or claimed to have value in promoting plant growth or health.

Env-Wt 602.17 "Fore dune" means the primary ridge or mound of sand closest to the sea, formed by the accumulation of wind-blown sand, that provides a substrate for the growth of dune vegetation which in turn traps more sand and allows the dune to grow so as to provide critical storm surge shoreline stabilization and habitat functions.

Env-Wt 602.18 "Functionally-equivalent use" means a use for a new or remodeled structure that:

(a) Maintains the pre-existing use, for example using an existing residential structure as residential or an existing commercial structure as commercial; and

(b) If not served by a public wastewater collection and treatment system, does not increase the sewage loading.

**NOTE:** All cross-references subject to verification/correction.

Env-Wt 602.19 "Ground cover" means any herbaceous plant or any woody seedling or shrub generally less than 3 feet in height. The term does not include lawns, landscaped areas, gardens, invasive species as listed by the department of agriculture, markets, and food in accordance with RSA 430:53, III, exotic aquatic species listed pursuant to Env-Wq 1303, imported organic or stone mulches, or other artificial materials.

Env-Wt 602.20 "Highest observable tide line (HOTL)" means a line defining the farthest landward limit of tidal flow, not including storm events, that can be recognized by indicators such as the presence of a strand line of flotsam and debris, the landward margin of salt tolerant vegetation, or a physical barrier that blocks inland flow of the tide.

Env-Wt 602.21 "Impervious surface" means any surface modified by or as a result of human activity that cannot effectively absorb or infiltrate water. The term includes, but is not limited to, roofs, and unless designed to effectively absorb or infiltrate water, decks, patios, and paved, gravel, or crushed stone driveways, parking areas, and walkways.

Env-Wt 602.22 "Impervious surface area" means the sum total of the footprint of each impervious surface that is located within the tidal buffer zone.

Env-Wt 602.23 "In-fill lot" means an undeveloped lot of record that is located:

(a) On the back side of the fore dune within the line of encroachment and surrounded on three sides by structures or roadway; or

(b) Within the dune slack area where the predominance of infrastructure and development has occurred and the lot is surrounded on 4 sides by development.

Env-Wt 602.24 "Industrial tidal dock" means a docking structure in tidal waters/wetlands that serves vessels, including but not limited to tankers, cargo ships, military vessels, and research vessels, that have a capacity and purpose such that an advanced and specialized level of structural engineering is required to safely and efficiently allow ship-to-shore and shore-to-ship transfers. The term includes tidal docks and infrastructure associated with power plants, fuel tank farms, cargo holding and transfer, security, and research.

Env-Wt 602.25 "Landscaping" means the planting of non-invasive ornamental or native plant species in planting beds created by hand or placement by hand of ornamental items such as small sculpture or statuary, stepping stones or stone edging within planting beds, all occurring in a previously altered area, such as lawn, within the developed coastal buffer. The term includes gardening.

Env-Wt 602.26 "Line of encroachment" means the linear limit of the majority of existing structure construction toward a resource area.

Env-Wt 602.27 "Low phosphate, slow release nitrogen fertilizer" means fertilizer that is guaranteed, as indicated on the package label, to contain:

(a) Not more than 2% phosphorus; and

(b) A nitrogen component that is at least 50% slow release nitrogen components.

Env-Wt 602.28 "Natural condition" means the condition that exists without interference with the natural growth and regrowth of vegetation. The term does not include lawns or landscaped areas.

Env-Wt 602.29 "Overdredge" means the allowable margin of dredge that extends beyond the authorized dimensions of the dredge prism of a navigation or other dredge project.

Env-Wt 602.30 "Primary structure" means a structure that is central to the fundamental use of the property and is not accessory to the use of another structure on the same property.

Env-Wt 602.31 "Protected tidal zone" means the tidal buffer zone established under RSA 482-A and the protected shoreland established under RSA 483-B.

**NOTE:** All cross-references subject to verification/correction.

Env-Wt 602.32 "Public infrastructure" means public roads, facilities, and constructed landscape that is open to, and maintained to be used by, the general public.

Env-Wt 602.33 "Qualified coastal professional" for the purposes of conducting coastal functional assessments means an individual who has knowledge, based on education and experience, of coastal environments and systems that is sufficient to enable the individual to competently evaluate coastal resources.

Env-Wt 602.34 "Residential tidal dock" means a docking structure in tidal waters/wetlands that serves private residential properties, whether individually or as an association such as a homeowners' association.

Env-Wt 602.35 "Seaweed removal season" means the time period beginning the Saturday of Memorial Day weekend and running through the Sunday of the weekend following Labor Day weekend.

Env-Wt 602.36 "Sequential dredging" means the process of timing and conducting a dredge project in specified order, in a horizontal and/or vertical direction, in order to address environmental conditions that include but are not limited to the tide cycle, the presence and activity level of fish and wildlife, and weather conditions, to minimize the biological impact on the natural resources present within the subject system.

Env-Wt 602.37 "Special aquatic sites (SAS)" means inland and tidal wetlands, mud flats, vegetated shallows having submerged aquatic vegetation, sanctuaries and refuges, coral reefs, and riffle and pool complexes.

Env-Wt 602.38 "Submerged aquatic vegetation" means rooted vegetation that grows in permanently inundated areas, such as eelgrass and widgeon grass.

Env-Wt 602.39 "Tidal beach" means the area located between mean lowest low water and the tidal shoreline break, typically consisting of expanses of unconsolidated, usually unvegetated, sediments that are subject to wave action. The term includes any berm adjoining a tidal beach.

Env-Wt 602.40 "Tidal buffer zone" means the area extending landward 100 feet, measured horizontally, from the highest observable tide line, which can contain wetlands, transitional areas, and natural and developed upland areas.

Env-Wt 602.41 "Tidal dock infrastructure" means infrastructure associated with a tidal dock to facilitate ship-to-shore and shore-to-ship transfers. The term includes but is not limited to piers, catwalks, gatehouses, weigh stations, conveyors, mooring cells, dolphins, and pipelines or other conduits.

Env-Wt 602.42 "Tidal flats" means a relatively level landform composed of unconsolidated mineral and organic sediments, usually contiguous to the shore, that is alternately flooded and exposed by the tides.

Env-Wt 602.43 "Tidal flushing" means the influx and outflow of water associated with the ebb and flow of the tide.

Env-Wt 602.44 "Tidal marsh" means a marsh in which the primary source of water is salt water.

Env-Wt 602.45 "Tidal shoreline" means any land area within New Hampshire that is subject to the ebb and flow of the tide, extending from a sub-tidal toe to land above the highest observable tide line. The term includes rocky shores, unconsolidated vegetated marine or estuarine banks, and artificial or constructed shorelines such as seawalls, bulkheads, and rip rap slopes.

Env-Wt 602.46 "Tidal surface water" means any surface water that is subject to the ebb and flow of the tide.

Env-Wt 602.47 "Tidal waters/wetlands" means tidal wetlands and tidal surface waters.

Env-Wt 602.48 "Tidal wetlands" means wetlands whose vegetation, hydrology, and soils are influenced by periodic inundation of the tides.

**NOTE:** All cross-references subject to verification/correction.

Env-Wt 602.49 "Transient public use access points" means water-dependent docks or other structures that are open to the public for temporary berthing, whether for a fee or not, typically associated with a land-based commercial or public enterprise. The term includes, but is not limited to, docks at public parks, other public docks or ramps, and docks provide by restaurants or other land-based enterprises.

Env-Wt 602.50 "Working waterfront" means water-dependent or historic structures that represent a direct and on-going operational connection to the historical culture of a municipality and its business community.

Env-Wt 602.51 "Unaltered state" means native vegetation allowed to grow without cutting, limbing, trimming, pruning, mowing, or other similar activities except as needed for renewal or to maintain or improve plant health.

PART Env-Wt 603 ADDITIONAL APPLICATION INFORMATION FOR PROJECTS IN COASTAL AREAS

Env-Wt 603.01 Applicability. The applicant for a project in a coastal area shall provide the information required by this part in addition to the information required by Env-Wt 311 for a standard permit, Env-Wt 310 for an expedited permit, or Env-Wt 309 for a lower scrutiny approval, as applicable.

Env-Wt 603.02 Project Purpose. The applicant shall provide a written explanation of the purpose of the proposed project, including the overall goal of the project, the core project purpose including but not limited to a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome.

Env-Wt 603.03 Data Screening.

(a) Prior to finalizing the details of a proposed project in a coastal area, the applicant shall:

(1) Conduct a data screening as described in (b), below, to identify all natural resource assets and issues that may be impacted by the proposed project; and

(2) Verify or correct the information collected from the data screening by conducting an on-site assessment of the subject property.

(b) The data screening required by (a)(1), above, shall be done using the links provided in:

(1) Env-Wt 311.01(b), table 311-1; and

(2) Table 603-1, below:

Table 603-1: Data Screening Links for Projects/Activities in Coastal Areas

| **Resource** | **Link** |
|---|---|
| NOAA Tides & Currents | https://tidesandcurrents.noaa.gov/products.html |
| NOAA Essential Fish Habitat Mapper | https://www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper |

Env-Wt 603.04 Coastal Functional Assessment (CFA) Report.

(a) With any application for a standard permit for a project in any coastal area, the applicant shall submit a coastal functional assessment (CFA) report that is based on the data screening and on-site assessment required by Env-Wt 603.03 and current scientific literature, recognized technical guidance, and the recommendations of the consulting agencies listed in Env-Wt 603.03(b)(2), table 603-1.

(b) The CFA report shall include:

(1) The map(s) described in Env-Wt 603.05 and Env-Wt 603.06; and

**NOTE:** All cross-references subject to verification/correction.

(2) The information required by Env-Wt 603.07.

Env-Wt 603.05 Additional Map Information for Projects in Coastal Areas. In addition to the information required by Env-Wt 311.06, any maps or plans for a project proposed in or on any coastal areas shall:

(a) Identify areas that currently are susceptible to damage from storm surges; and

(b) Identify areas subject to potential sea level rise by mapping predicted sea level elevations.

Env-Wt 603.06 NH Coastal Viewer-Generated Map(s). The map(s) required by Env-Wt 603.04(b)(1) shall be generated from the UNH Granite NH Coastal Viewer, available at www.granit.unh.edu/nhcoastalviewer/, using the layers identified in table 603-2, below, to obtain the required information identified:

Table 603-2: NH Coastal Viewer Layers

| **Layer** | **Required Information** |
|---|---|
| Administrative and Political Boundaries | City or town boundaries, CZMA boundaries, and boundaries of the subject parcel |
| Transportation | Public roads |
| Elevation | LiDAR 2-foot contours and USGS Topographical Quads |
| Base map/Aerial Imagery | Regional orthophotography |
| Environment and Conservation | Conservation and Public Lands; Designated Rivers; Fluvial Geomorphology [Stream Crossings, Aquatic Organism Passage (full and reduced)]; Other Geomorphic Data/Features; Wildlife Action Plan if not already obtained directly; Cover (Land Use, Impervious Surfaces, Land Conservation Plan); Land Cover (Coastal Island, Dune, Open Water, Rocky ridge, Salt marsh); Inland Water Resources [Dam Inventory, Ditches in Great Bay Estuary, Ditches in Hampton-Seabrook Estuary, Flood Plains (DFIRM effective 9/30/2015, Cross Sections, Base Flood Elevations, Flood Hazard Lines, Flood Hazard Areas) |
| Geological & Geophysical | Soil Series; Surficial Geology Material |
| Inland Water Resources | Dam Inventory; Flood Plains; DFIRM eff. 9/20/2015; Cross Sections; Base Flood Elevations; Flood Hazard Lines; Flood Hazard Areas |
| Oceans & Coasts | Dunes (Fore Dune, Inter Dune [Dune Slack Area], Back Dune); Coastal Beaches (Shoreline Structures Inventory, Predicted Marsh Migration, Predicted Sea Level Rise) |
| Biology & Ecology | National Wetlands Inventory; Shellfish Aquaculture; Shellfish Water Classification (Approved, Conditionally Approved, Prohibited, Prohibited Safety Zone, Prohibited Unclassified, Restricted); Shellfish Resources [Current Shellfish Beds (Blue Mussel, Oyster, Razor Clam, Soft Shell Clam, Shellfish Restoration Sites) and Historic Shellfish Resources (Surf Clams, Soft Shell Clams, Oysters)]; Seafloor Habitats; Temporal Eelgrass |
| Cultural Society & Demographic | Recreational Boater Activities; Recreational Boater Route Density; Vessel Activity 2012 |

Env-Wt 603.07 Required Information. The information required by Env-Wt 603.04(b)(2) shall comprise a narrative and such additional plans as are needed to:

(a) Specifically identify all natural resource assets in the area proposed to be impacted;

(b) Provide a functional assessment of coastal storm surge protection shoreline stability function, fish and wildlife habitat, flood storage, water quality improvement, and attenuation;

**NOTE:** All cross-references subject to verification/correction.

(c) Describe the vulnerabilities of the assets identified pursuant to (a), above; and

(d) Explain all recommended methods and other considerations to protect the assets during and as a result of project construction.

Env-Wt 603.08 Project Design Narrative Required. The applicant shall provide a project design narrative that includes the following:

(a) A discussion of how the proposed project:

(1) Uses best management practices or industry standard techniques;

(2) Meets all avoidance and minimization requirements; and

(3) Acknowledges or addresses predicted sea level rise;

(b) A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and

(c) A discussion of how the completed project will be maintained and managed, including maintenance of impervious surfaces, seasonal removal and storage location of docking structures, and planting plans;

Env-Wt 603.09 Design Plans.

(a) The applicant shall submit design plan for the project in both plan and elevational views that clearly depict and identify all required elements, as described in Env-Wt 311 and (b) and (c), below.

(b) The plan view shall depict the following:

(1) The engineering scale used, which shall be no larger than one inch equals 50 feet;

(2) The location of tidal datum lines depicted as a line with the associated elevation noted, based on NAVD88, derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Env-Wt 603.10;

(3) An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;

(4) The location of all special aquatic sites at or within 100 feet of the subject property;

(5) Existing bank contours;

(6) The name and license number, if applicable, of each individuals responsible for the plan, including:

a. The licensed land surveyor who determined elevations represented on plans; and

b. The qualified coastal professional who completed the functional assessment report and located the identified resources on the plan; and

(7) The location and dimensions of all existing and proposed structures and landscape features on the property.

(c) The elevational view shall depict the following:

(1) The nature and slope of the shoreline;

(2) The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and

(3) Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured.

**NOTE:** All cross-references subject to verification/correction.

Env-Wt 603.10 Water Depth Supporting Information Required.

(a) Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD88, field observations of at least 3 tide events, including at least one minus tide event, shall be surveyed by a licensed land surveyor to document the range of the tide in the proposed location showing the following levels:

(1) Mean lower low water;

(2) Mean low water;

(3) Mean high water;

(4) Mean tide level;

(5) Mean higher high water;

(6) Highest observable tide line (HOTL), field-located using predicted tide tables to determine the appropriate date of monthly astronomically high tides; and

(7) Predicted sea level rise as described in "NH Coastal Risk and Hazards Commission: Preparing NH for Projected Storm Surge, Sea-Level Risk, and Extreme Precipitation", November 2016.

(b) The following data shall be presented in the application project narrative to support how water depths were determined:

(1) The date, time of day, and weather conditions when water depths were recorded; and

(2) The name and license number of the licensed land surveyor who conducted the field measurements.

Env-Wt 603.11 Statement Regarding Impact on Navigation and Passage.

(a) For any project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, the applicant shall submit a statement from the pease development authority division of ports and harbors ("DP&H") chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation in the channel.

(b) If the proposed structure might impede either existing public passage along the subject shoreline on foot or near-shore navigation by small watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable.

PART Env-Wt 604 NEED FOR PROJECT IMPACTS IN COASTAL AREAS

Env-Wt 604.01 Demonstration of Need: Tidal Beaches, Tidal Shoreline, and Sand Dunes.

(a) Any person proposing a project in or on a tidal beach, tidal shoreline, or sand dune, or any combination thereof, shall demonstrate need as specified in Env-Wt 313.03, subject to (b) and (c), below.

(b) In addition to meeting the criteria of Env-Wt 313.03, projects in or on a tidal beach, tidal shoreline, or sand dune shall support integrated shoreline management that:

(1) Optimizes the natural function of the shoreline, including protection of habitat, water quality, and self-sustaining stability to flooding and storm surge; and

(2) Protects upland infrastructure from coastal hazards.

Env-Wt 604.02 Demonstration of Need: Tidal Buffer Zones.

(a) Any person proposing a project in or on a tidal buffer zone shall demonstrate need as specified in Env-Wt 313.03, subject to (b), below.

(b) In addition to meeting the criteria of Env-Wt 313.03, projects in or on a tidal buffer zone shall preserve the self-sustaining ability of the buffer area to enhance habitat values in the adjoining tidal wetland and to protect tidal environments from potential sources of pollution, through the maintenance of natural vegetation, stability, and space for natural changes to occur.

Env-Wt 604.03 Demonstration of Need: Tidal Waters/Wetlands.

(a) Any person proposing a project in tidal surface waters or tidal wetlands shall demonstrate need as specified in Env-Wt 313.03, subject to (b), below.

(b) In addition to meeting the criteria of Env-Wt 313.03, projects in tidal surface waters or tidal wetlands shall:

(1) Optimize the natural function of the tidal wetland, including protection of habitat, water quality, and self-sustaining stability to storm surge;

(2) Be designed and intended to protects upland infrastructure from coastal hazards; and

(3) Be limited to public infrastructure or restoration projects that are in the interest of the general public including but not limited to a road, bridge, energy structure, or coastal resiliency installation.

PART Env-Wt 605 AVOIDANCE AND MINIMIZATION; COMPENSATORY MITIGATION

Env-Wt 605.01 Avoidance and Minimization Requirements in Coastal Areas. In addition to the avoidance and minimization requirements in Env-Wt 313.04, projects in coastal areas shall:

(a) Not endanger finfish, shellfish, crustacea, or wildlife;

(b) Minimize disturbances of groundwater and surface water flow;

(c) Not impair the navigation, recreation, or commerce of the general public;

(d) Minimize alterations in prevailing currents;

(e) Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both;

(f) Avoid impacts that might cause erosion to shoreline properties;

(g) Acknowledge potential sea level rise by identifying predicted sea level elevations on maps and plans; and

(h) Incorporate municipal and regional adaptation and resilience planning guidelines and ordinances in any design.

Env-Wt 605.02 Additional Requirements for Projects In or Adjacent to Tidal Waters/Wetlands and Tidal Buffer Zones. An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone also shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04:

(a) Adverse impacts to beach or tidal flat sediment replenishment;

(b) Adverse impacts to the movement of sediments along a shore;

(c) Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and

(d) Adverse impacts of project runoff on salinity levels in tidal environments.

Env-Wt 605.03 Impacts Requiring Compensatory Mitigation.

(a) Subject to (b), below, compensatory mitigation shall be required for all impacts to tidal surface waters, tidal wetlands, the tidal buffer zone, or sand dunes, or any combination thereof, that are intended to remain when the proposed project is completed.

(b) Compensatory mitigation shall not be required for:

(1) Low impact maintenance activities such as piling replacement, in-kind structure reconstruction, or sediment displacement from intake structures as limited in subsection (x);

(2) Restoration of habitat or ecosystem pursuant to Env-Wt 407.04;

(3) Maintenance dredge of an existing FNP that is on an active dredge cycle;

(4) Construction of a tidal docking structure where the combined total of all surface coverage on the frontage is less than 2,000 square feet;

(5) Work within an altered area of developed tidal buffer zone located greater than 75 feet from the salt marsh; or

(6) Work within an altered area of the developed tidal buffer zone that is not adjacent to salt marsh and is less than 10,000 square feet of total impact.

Env-Wt 605.04 Requirements for Compensatory Mitigation for Projects in Coastal Areas.

(a) The preferred form of compensatory mitigation for projects in coastal areas shall be as shown in table 605-1:

Table 605-1: Preferred Forms of Compensatory Mitigation for Projects in Coastal Areas

| **Type of Project** | **Preferred Forms of Compensatory Mitigation** |
|---|---|
| Overwater Structures >2,000 SF total coverage | Permittee-responsible mitigation |
| Dredge - new tidal dredge or FNP expansion | Permittee-responsible mitigation |
| Tidal Buffer Zone (TBZ)<br>- undeveloped lots<br>- developed upland lot, in-fill lot if any impacts within 75 feet of a salt marsh<br>- impacts >10,000 SF in developed TBZ not adjacent to salt marsh | Permittee-responsible on-site mitigation |
| Sand Dunes | Permittee responsible on-site mitigation |

(b) Compensatory mitigation proposals for projects in the tidal buffer zone shall demonstrate one or both of the following:

(1) Identification and preservation of site land area for marsh migration compatible with predicted sea level rise; and

(2) Replacement or enhancement of buffer functions or living shorelines by following planting recommendations reflected in “Guidance for Considering the Use of Living Shorelines”, NOAA, 2015, available as noted in Appendix B.

(c) Compliance with maintenance of the waterfront buffer, natural woodland buffer, unaltered percentage requirements, and impervious surface requirements, pursuant to Env-Wt 6?? [TBZs] shall not constitute mitigation.

**NOTE:** All cross-references subject to verification/correction.

(d) The applicant shall propose mitigation for proposed impacts that:

(1) Meets or exceeds the minimum compensatory mitigation ratios stated in Table 800-1; or

(2) Provides an acceptable alternative compensatory mitigation proposal as described in 803.09.

PART Env-Wt 607 OVERWATER STRUCTURES IN COASTAL AREAS

Env-Wt 607.01 Applicability. This part shall apply to all overwater structures in coastal areas, including but not limited to residential tidal docks, commercial tidal docks, and industrial tidal docks and the infrastructure associated therewith.

Env-Wt 607.02 Avoidance and Minimization Standards for All Overwater Structures.

(a) Overwater structures shall be located and designed to avoid impacts to all natural resources identified in the coastal functional assessment (CFA) report, including but not limited to special aquatic sites.

(b) On frontage that contains or is adjacent to special aquatic sites or difficult navigation conditions that require human alteration to create and maintain access, the need for overwater structures shall be minimized by using upland boat storage and trailering to a launch point or marina.

(c) Structures shall be designed to avoid impacts to resources identified in CFA report to the greatest extent practicable, and to minimize any impacts that cannot be avoided.

Env-Wt 607.03 Design Requirements for All Overwater Structures.

(a) Structures shall meet the 20-foot property line setback specified in RSA 482-A:3, XIII(a).

(b) Projects shall not impede near-shore or channel navigation.

(c) Commercial tidal docks and industrial tidal docks shall be designed by a licensed P.E. who has experience and specialty in marine shoreline structures.

(d) Any tidal dock infrastructure or specialized design features related to the unique function of a specific facility, such as structures on the docks that facilitate public use and control and management of the facility, such as dock master huts, ticket facilities, ADA access, and information kiosks, shall:

(1) Be substantiated with a justification tied to the specific purpose of the project; and

(2) Meet industry standards.

(e) All floats and floating structures or sections thereof, shall:

(1) Be positioned waterward of any vegetated wetlands or vegetated shallows;

(2) Not be placed in areas supporting submerged aquatic vegetation; and

(3) Be located, to the extent practicable, in water that is sufficiently deep for the intended use while:

a. Avoiding intertidal and shade impacts;

b. Minimizing or eliminating the need for dredging;

c. Minimizing groundings; and

d. Avoid displacement of SAV.

(f) Materials other than treated wood timbers or pilings, such as untreated wood, concrete, or steel shall be used if at all practicable, as such materials help reflect light under docks and typically do not release contaminants into the aquatic environment.

**NOTE:** All cross-references subject to verification/correction.

(g) To minimize under-structure shading, ambient light transmission under docking structures shall be facilitated and enhanced by using design features such as maximizing the height and minimizing the width of the structure, using grated decking material, using the fewest number of pilings necessary to support the structures, and aligning docking structure components in a north-south orientation to allow the path of the sun to cross perpendicular to the length of the structure and reduce the duration of shading.

(h) Open piles placed at least 12 feet apart shall be the least impacting alternative of permanent docking construction.

(i) Supporting piles shall occupy 5% or less of the total volume under the docking structure at mean high water, to allow most wave and current energy to pass through so as to prevent deepening of the area.

Env-Wt 607.04 Project Classifications.

(a) All new overwater structure construction in tidal waters/wetlands shall be classified as major.

(b) Maintenance, repair, and replacement in-kind of existing legal docking structures shall be classified as low impact, provided:

(1) No work is proposed that would be prohibited under RSA 482-A:26;

(2) No change in location, configuration, construction type, or dimensions is proposed; and

(3) The applicant certifies in writing that:

a. The existing structures would be considered grandfathered in their current configuration and have not been abandoned; or

b. The existing structures were constructed pursuant to a previously-issued wetlands permit and have not been abandoned.

Env-Wt 607.05 Plan Requirements for All Overwater Structures. In addition to the general plan requirements in Env-Wt 311.05 and Env-Wt 603.05, plans submitted with an application for an overwater structure shall include the following:

(a) A plan view, depicting the following:

(1) The location of the landward boundary of the FNP or, if no FNP is present, the landward boundary of the navigational channel;

(2) The location and dimensions of all existing structures on the subject property;

(3) The location and dimensions of all proposed structures; and

(4) For commercial tidal docks and industrial tidal docks, certification by a qualified coastal professional that the dock has been designed for its intended use.

(b) An elevational view, depicting the following:

(1) The location and dimensions of all proposed structures, including but not limited to permanent piers, pilings, float stop structures, ramps, floats, and dolphins;

(2) The location of the landward boundary of the FNP or, if no FNP is present, the landward boundary of the navigational channel.

Env-Wt 607.06 Residential Tidal Docks: Considerations.

(a) Residential tidal docks shall be:

(1) For private recreational use associated with one or more private residences; and

(2) Designed as specified in this part, which might not result in all-tide access.

(b) Ramp and float portions of residential tidal docks shall be seasonal and removed from the water during the non-boating season.

(c) To reduce the overall number of residential tidal docks and the adverse impacts to nearshore habitat resulting therefrom, preference shall be given to residential tidal docks designed to serve multiple properties.

(d) To demonstrate that a proposed residential tidal dock is the least impacting alternative, the applicant shall show that:

(1) The subject property is not already served by a residential tidal dock that meets current standards, whether for the applicant's own property or for a group the applicant is, or is eligible to be, a member of based on ownership of the residence; and

(2) There is no marina or other rental slip facility in the same interconnected waterbody reasonably available to the applicant.

(e) The location, design, and method of construction for a proposed residential tidal dock shall:

(1) Be based on the results of the coastal functional assessment (CFA) so as to avoid negative impacts to which the resources identified in the CFA report may be vulnerable, and to minimize any impacts that cannot be avoided;

(2) Be the least environmentally-impacting practicable alternative;

(3) Demonstrate sufficient structural integrity to not break free as a result of tidal forces encountered during winter ice and significant storm surges up to and including 100 year events; and

(4) Not adversely affect channel-based or near-shore navigation.

(f) Pile-supported structures and floats shall not be located within 25 feet of currently existing or previously known vegetated shallows.

(g) No structure shall extend across 25% or more of the waterway width at mean low water.

(h) No structure shall be located within the buffer zone of the horizontal limits of an FNP, which is 3 times the authorized depth of a constructed FNP as measured on a horizontal plane,.

(i) No structure shall be constructed that obstructs the rights of passage of foot traffic within the inter-tidal zone, near shore watercraft users, or obstruct navigation in the channel.

(j) The following shall not be approved for residential tidal docks:

(1) Lightweight aluminum or similar seasonal pipe docks;

(2) Cantilevered or crank-up dock systems;

(3) A float, or string of floats or floating walkways connected directly to the shore;

(4) Floats that sit directly on the mud at low tide or on skids that sit directly on the mud at low tide;

(5) Boardwalks over tidal marsh to reach a dock; and

(6) Boathouses located in or over tidal waters/wetlands or over slips dug into the shore.

(k) The density of coverage by residential tidal docks over public trust waters shall be limited by the following factors:

(1) One structure that meets the property line setback established in RSA 482-A:3, XIII(a) on each frontage;

(2) The presence of special aquatic cites;

(3) Water depths; and

(5) Compliance with length and square footage requirements specified in (j), below.

Env-Wt 607.07 Residential Tidal Docks: Design Standards.

(a) A residential tidal dock shall have one of the following configurations:

(1) A pile-supported fixed pier perpendicular to the shore, that connects to a ramp, that connects to a float;

(2) A ramp that connects the shore to a float; or

(3) A pile-supported fixed pier parallel to shore.

(b) An applicant may propose a fabricated wooden or metal stairway for access to and from a residential tidal dock, which the department shall approve as part of the dock permitting process provided:

(1) The width of the stairway does not exceed 6 feet;

(2) Construction over the bank does not require regrading or recontouring; and

(3) The bottom of the stairs lands above mean high tide.

(c) The maximum overall structure length including pier, ramp, and float, measured seaward from a starting point at the HOTL, shall not exceed the greater of 200 feet or the length needed to reach water of sufficient depth to allow the terminal section of the dock to be floating at low tide.

(d) The maximum overall footprint of the entire structure of a residential tidal dock serving a single residence shall not exceed 1,500 square feet (SF) seaward of the HOTL, provided that a residential tidal dock proposed to serve a group of residences may be larger so long as compensatory mitigation is provided for structures exceeding 2,000 SF.

(e) For permanent piers:

(1) The maximum width shall not exceed 6 feet; and

(2) The height-to-width ratio above the substrate shall be 1:1 or greater.

(f) Floats may be of any configuration so long as the total square footage does not exceed 400 SF, provided that an additional 200 SF shall be allowed for a dock serving a group of residences. Applicants for a residential tidal dock serving more than 4 residences may request a waiver of the 600-SF limit in accordance with Env-Wt 200.

(g) All floats shall be designed and installed so as to prevent substantial changes in their positions from tides and storm events that are less than hurricane force.

(h) If mean lower low water is seaward beyond the terminal float(s) at low tide, or when it is impracticable or impossible to place floating docks in water deep enough to avoid contact with the bottom, the design shall include float stops or other means of suspending the float with not less than 2 feet of clearance between the bottom of the float and substrate, to prevent mechanical damage or hydraulic damage, or both, to the substrate from the float during low tides, with greater clearances required in higher energy environments that experience strong wave action.

(i) Float stops shall be marked with buoys to avoid being hazards to navigation when ramps and floats are removed for the season.

(j) Float anchor chains shall be secured to the substrate by helical screw anchors where practicable. If helical screw anchors cannot be installed due to rocky bottom conditions, the applicant shall propose an alternate means of anchoring the floating portion of the dock and show such means on the plans. If block anchors are proposed, the anchors shall be identified in the application as fill.

(k) The spacing between decking components shall be not less than ¾-inch.

(*l*) Minimum spacing between piles shall be 12 feet center to center.

(m) The substrate shall not be shaded by any other structural components not addressed herein;

Env-Wt 607.08 Commercial Tidal Docks: Local Requirements.

(a) Any new commercial tidal dock and any expansion of an existing commercial tidal dock shall comply with all applicable lawfully-enacted local land use or other requirements.

(b) The applicant shall submit a copy of the local permit or approval, or a letter from the applicable local land use board or local governing body clearly stating that a permit or approval is not required under local regulations, to the department with the application or otherwise prior to the department making a decision on the application.

Env-Wt 607.09 Commercial Tidal Docks: Transient Public Use Access Points.

(a) Proposed transient public use access point structures shall not be approved unless they provide a benefit to the public, such as a docking facility that is open to the general public for transient use.

(b) The configuration and dimensions allowed for commercial structures may vary, depending upon the use of the structure, as limited by the standards in Env-Wt 607.02 and Env-Wt 607.03.

Env-Wt 607.10 Commercial Tidal Docks: Marinas.

(a) Marinas shall be designed and constructed with controls to avoid damage to the environment due to leakage or spills of fuels, lubricants, waste products, or other pollutants.

(b) The applicant for marina construction or expansion shall provide the department with evidence of compliance with the applicable best management practices from the BMPs for New Hampshire Marinas dated [2001] *possible update?* and available at https://www.des.nh.gov/organization/commissioner/pip/publications/wd/documents/nhdes-wd-01-12.pdf .

(c) With any request for a new or expanded marina or any repairs that go beyond replacement in-kind, the applicant shall submit a master plan of operations that includes:

(1) Existing or proposed operational conditions, which describe how the facility currently meets the definition of marina, as well as a description of services or activities that exceed the definition, such as aquaculture nursery use of slips;

(2) A plan of all permanent and seasonal structures in plan view, including dockage, boat ramps, boat haul out locations, and marine rails or other structures either in the water or within the tidal buffer zone;

(3) A plan for management of seasonal structures, including methods and timing of installation and removal and storage locations;

(4) A spill response action plan;

**NOTE:** All cross-references subject to verification/correction.

(5) A stormwater treatment plan; and

(6) A consideration of expansion statement that addresses whether the facility is at capacity or has the physical space to expand operations in the future.

(d) The applicable design and dimension standards for residential tidal docks shall apply to marinas, with the following additions:

(1) Designated wash areas for all forms of vessel cleaning;

(2) Storm water runoff and treatment designs;

(3) Location and management of pump-out facility;

(4) Location and management of abrasive blasting, painting operations, and hull sanding; and

(5) Location and disposal method for oil or other waste products.

(e) For marinas, the density of coverage over public trust lands by of structures constructed within tidal resources shall be limited by the following factors:

(1) One or more structures on frontage, which shall meet the 20-foot property line setbacks;

(2) Resource limitations identified by the results of the CFA report;

(3) Documentation of water depths and compliance with length and square footage requirements;

(4) Compensatory mitigation for square footage of structural coverage below HOTL that exceeds 2,000 SF;

(5) Dock length shall meet the length limitations based on water depth information;

(6) Dock width and square footage limitations as described for residential tidal docks;

(7) Finger floats shall be used instead of permanent structures where practicable;

(8) Float configuration may vary as long as the use avoids resource impacts as a first priority, and second, concentrates the structure footprint in a manner that avoids sprawl over the public trust.

(f) For a proposal to redevelop an existing or previous marinas, all functions of the marina shall be retained, provided that if the business function is abandoned or otherwise lost, the property shall be subject to removal to a level compliant with the residential or commercial transient access standard.

Env-Wt 607.11 Commercial Tidal Docks: Aquaculture at Marinas.

(a) Aquaculture nursery structures installed between slip fingers shall be subject to review as a modification of the approved dock structure, not vessels berthed at the dock.

(b) As a modification of the approved dock structure, after receiving approval from the department the request shall be submitted to the governor and executive council.

Env-Wt 607.12 Commercial Tidal Docks: Working Waterfront.

(a) The dimensions and configurations of a working waterfront facility shall be based on its use, rather than standard dimensions or configurations. Working waterfront structures may have non-conforming dimensions or functional features that can be retained or modified.

(b) Modifications of working waterfront structures may include remodeling, repair, and de minimis expansion so long as the resulting structure has a functionally-equivalent use.

**NOTE:** All cross-references subject to verification/correction.

(c) No modification shall be allowed that changes a working waterfront structure into a dwelling unit or restaurant.

Env-Wt 607.13 Industrial Tidal Docks and Infrastructure.

(a) With any request for a new or expanded industrial dock or any repairs that go beyond replacement in-kind, the applicant shall submit the following:

(1) A facility operations plan that describes the facility's function, operation, expected vessel usage and capacity in terms of tonnage, length, and draft, product delivered, and service to the general public;

(2) A facility maintenance plan that identifies how the facility's various components will be maintained and the schedule on which the maintenance will be performed;

(3) An existing facilities conditions plan that describes the condition of all existing facilities and includes a stormwater plan that demonstrates proper protection of water quality; and

(4) An emergency response plan that addresses potential impacts associated with failure of the structure that would result in environmental harm or that would require dredging to remediate and includes:

a. Product control on the regulated structure or within the regulated area;

b. Spill response;

c. Crash or structure failure; and

d. Dismantling and removal of structures.

(b) The configuration and dimensions allowed for industrial structures may vary depending upon the use of the structure, as limited by Env-Wt 604 relative to need and Env-Wt 605 relative to avoidance and minimization.

(c) The applicant shall submit with the application a consideration of expansion statement, that addresses whether the facility is at capacity or has the physical space to expand operations in the future.

(d) The applicant shall:

(1) Identify all federal design standards that apply to the proposed project, such as from the U.S. Coast Guard, the U.S. Maritime Administration, and the Maritime Transportation System; and

(2) Certify that the identified requirements have been or will be met.

(e) The facility operations plan required by (a)(1), above, shall serve as the basis for the design justification.

Env-Wt 607.14 Moorings. Any person who wishes to install a mooring shall direct inquiries to the pease development authority, division of ports and harbors, or harbor master.

Env-Wt 607.15 Boardwalks. Boardwalks in coastal areas shall meet the same criteria as specified in Env-Wt 5?? for non-tidal boardwalks.

Env-Wt 607.16 Boathouses and Shoreline Slips. Boathouses in or over tidal waters/wetlands and slips dug into the shore shall not be approved in any coastal area.

**NOTE:** All cross-references subject to verification/correction.

PART Env-Wt 608 DREDGING ACTVITIES

Env-Wt 608.01 Applicability. This part shall apply to:

(a) Maintenance and improvement of Federal Navigation Projects (FNPs);

(b) Dredging associated with non-FNP projects that are in the direct interest of maintaining commerce for the well-being of the general public, such as shipping conveyance of fuel oil or road salt cargo; and

(c) Dredging that is necessary to:

(1) Remediate contaminated sites;

(2) Restore extraordinary storm-driven sediment depositions that threaten public safety or hinder navigation; and

(3) Maintain intake and outflow infrastructure.

Env-Wt 608.02 Dredging Contaminated Sites. Areas of known contamination shall not be partially dredged, leaving freshly exposed sources of contamination to be transported by currents and dispersed into uncontaminated areas. For sites identified as contaminated, no dredging of contaminated soils shall be allowed without complete removal of all contaminated material.

Env-Wt 608.03 Project Classifications.

(a) Subject to (b), below, all forms of dredging in tidal waters/wetlands shall be classified as major.

(b) Removal of sediments surrounding an intake or outflow structure shall be classified as minimum impact provided:

(1) The sediments are removed by means of hand-held suction equipment;

(2) Work is limited to the immediate mouth of the structure; and

(3) The footprint of the activity does not exceed 500 square feet (SF).

Env-Wt 608.04 Tidal Dredge Project Descriptions; Approval Criteria. The additional descriptions and approval criteria listed in Table 608-1 shall apply to tidal dredging projects:

Table 608-1: Additional Classifications for Tidal Dredge Projects

| Class | Impact | Description | Comments |
|---|---|---|---|
| I | High | Maintenance of FNPs; industrial use areas regularly impacted by dredging/construction due to use for commercial/industrial shipping and fishing; existing working waterfront areas where dredging and construction/modification are regularly and frequently needed to maintain use functionality. Use represents public benefit. | Presumed approval if meets all standard requirements including avoidance and minimization (no waivers)<br><br>Compensatory mitigation not required |
| II | Incidental | Areas outside High Impact areas where one-time or incidental work is needed. Cannot be located in special aquatic sites, shellfish beds, or migratory shorebird habitat unless impacts can be/are completely restored immediately. Repeated impacts in the same location shall not be allowed. Includes first time expansion of an FNP. | Presumed approval if meets all standard requirements including avoidance and minimization (no waivers) and need for the dredge is demonstrated to be for the public good. is considered a Class II dredge<br><br>Compensatory mitigation required |

**NOTE:** All cross-references subject to verification/correction.

Env-Wt 608.05 No Dredging in Areas of High Resource Natural Value. No dredging shall be allowed in areas of high natural resource value, including but not limited to areas having submerged aquatic vegetation, shellfish beds, essential fish habitat (EFH), shorebird resting and nesting areas, migratory shorebird habitat, FNP areas greater than 100 years old and having characteristics of high value natural area.

Env-Wt 608.06 Dredging Projects: State Sponsorship Required. Because all submerged lands below mean high tide are publicly owned and held in trust for the State of New Hampshire, the following shall apply:

(a) All applications to the department for dredging of FNPs shall be submitted by the pease development authority, division of ports and harbors (DP&H) pursuant to RSA 12-G:43, I(a); and

(b) All other dredging projects in tidal water shall have DP&H sponsorship or authorization for another entity, such as a municipality or private person to act as an agent to apply for a permit to dredge in tidal waters/wetlands.

Env-Wt 608.07 Pre-Application Meeting Required.

(a) A non-mitigation pre-application meeting shall be required for Class I dredge projects involving any FNP, with attendees from the department, DP&H, the U.S. Army Corps of Engineers Planning and Projects project manager, NH Fish & Game Department Marine Fisheries Division, NOAA National Marine Fisheries Service, the U.S. EPA, and project proponents such as municipality.

(b) A mitigation pre-application meeting shall be held in accordance with Env-Wt 311.02 for class I non-FNP projects and class II projects with attendees from the department and DP&H.

Env-Wt 608.08 Other Application Requirements.

(a) Prior to finalizing a dredge proposal, the applicant shall conduct a pre-dredge survey.

(b) The results of the pre-dredge survey shall be submitted with the application, together with all available historic surveys of the area.

(c) Any applicant for a major dredge project shall present the proposal to the Dredge Management Task Force described at https://www.des.nh.gov/organization/divisions/water/wmb/coastal/dmtf/index.htm.

(d) As specified in RSA 482-A:3,X(b), the application fee for dredging in tidal waters/wetlands for the purpose of improving navigation for a municipality, as sponsored by DP&H, shall not exceed $10,000.

(e) The application fee for all projects not covered by (b), above, shall be as specified in RSA 482-A:3, I(a)(3).

Env-Wt 608.09 Avoidance and Minimization.

(a) New dredging shall be avoided to the maximum extent practicable. In lieu of dredging, activities and projects that need deeper water shall be located in deep water as limited by overwater structure design standards, or allowed in shallow water under the presumption that no modification of the existing bottom contour and water depth will be allowed.

(b) The applicant shall certify to the department that areas proposed for dredging are necessary in order to maintain the necessary and authorized target depths of the channel. Recent bathymetric surveys shall be submitted to show the existing depths of the area proposed for dredging. Areas within the proposed dredge area that are at or deeper than the target depths shall be avoided whenever practicable

(c) The footprint and volume of material to be dredged shall be reduced to the maximum extent practicable.

**NOTE:** All cross-references subject to verification/correction.

(d) Sequential dredging shall be used when practicable to avoid dredging activity during specific time periods in environmentally sensitive areas, to avoid turbidity and sedimentation, bottom disruption, and noise in sensitive areas used by fishery resources during spawning, migration, and egg development.

(e) No dredging shall occur in:

(1) Areas that support shellfish beds;

(2) Areas with submerged aquatic vegetation, areas that historically supported submerged aquatic vegetation, and areas that are potential habitat for recolonization by submerged aquatic vegetation;

(3) Intertidal and wetland habitat; or

(4) Eelgrass beds, estuarine/salt marshes, and other high value habitat areas.

(f) New cable and pipeline crossings shall be aligned along the least environmentally damaging route, specifically to avoid sensitive habitats including but not limited to rocky reefs, submerged aquatic vegetation, oyster reefs, shellfish beds, emergent marsh, and mud flats.

(g) Pipelines and submerged cables shall be buried where possible to avoid impacts to invertebrate migratory patterns resulting from pipe exposure.

(h) Open trenching for pipeline or cable installation shall not be used unless all other methods are not practicable. If open trenching is used, a method in which the trench is immediately backfilled shall be used to reduce the impact duration.

(i) Existing rights-of-way shall be used whenever possible to lessen overall encroachment and disturbance of coastal areas.

(j) Equipment access shall be limited to the immediate project area.

(k) No dredged material shall be disposed in areas containing sensitive or unique marine benthic habitats, including but not limited to spawning sites, feeding sites, and surface deposits of cobble or gravel substrate.

(*l*) Impacts to tidal waters/wetlands and submerged lands during the mobilization and demobilization of dredging and other related project equipment shall be evaluated and minimized.

Env-Wt 608.10 Sedimentation Control.

(a) Dredging in fine sediments shall be avoided when possible to reduce turbidity plumes and the release of nutrients and contaminants that bind to fine particles.

(b) All practicable methods for limiting the loss of sediment from the activity shall be employed, including closed buckets when appropriate.

(c) Sources of erosion in the watershed that could be contributing to excessive sedimentation and the need for regular maintenance dredging activities shall be identified and controlled to the extent practicable to eliminate or minimize on-going sedimentation.

Env-Wt 608.11 Additional Information Required for Dredging Projects.

(a) In addition to the plan requirements in Env-Wt 603, plans for tidal dredging projects shall include the following:

(1) Location of the State boundary line for projects proposed in the Piscataqua River or Salmon Falls River;

(2) Location of each sediment sampling location, with a key to sampling findings;

**NOTE:** All cross-references subject to verification/correction.

(3) Projected shape and depth of dredge prism tied to bottom contours;

(4) Overdredge proposed, not to exceed 2 feet;

(b) Disposal sites adequate to contain the volume of dredged material, including the volume of allowable over-depth dredging, shall be identified.

(c) Bankward slopes of the dredged area shall be no steeper than 3:1 to ensure that sloughing of the channel side slopes does not occur.

(d) Fishery habitat functions/services in the project areas, including but not limited to an essential fish habitat study, shall be identified and characterized prior to any dredge and fill activities.

(e) The direct and indirect impacts of wetland fills on fishery habitat shall be identified during proposed project reviews, including alterations of hydrology and water quality as a result of the proposed project.

(f) The CFA report shall include an assessment of the cumulative impact from past, current, and all reasonably-foreseeable future dredge and fill operations that impact aquatic habitats and an anticipated dredge cycle.

Env-Wt 608.12 Sediment Characterization and Analysis.

(a) Sediment from the proposed dredge site shall be characterized according to the following:

(1) Benthic analysis;

(2) Grain size; and

(3) History of exposure to contamination sources, whether from a land-based discharge source or in-water source from a spill.

(b) If the results of the sediment characterization assessment meet the formula for potential or known contamination, then testing of the sediment in the proposed dredge location shall be required by:

(1) Requirements for land-based solid or hazardous waste disposal as specified in Env-Sw ??? or Env-Hw ???; or

(2) Regional Implementation Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters, US EPA New England and US Army Corps of Engineers New England District, dated April 2004.

Env-Wt 608.13 Dredge Methods.

(a) For non-FNP projects, sediment dispersion modeling shall be done to characterize sediment resuspension and dispersion during operations, and modeling outputs shall be used to design operations, including measures to avoid and minimize impacts from suspended sediment and turbidity on living marine resources. Sediment dispersion models shall be field-verified to various sediment and hydraulic conditions to ensure they have been calibrated appropriately to predict sediment transport and dispersion.

(b) Proposed dredging methods shall:

(1) Be based on the nature of the sediment as determined by sediment characterization, results of contaminant testing, turbidity transport modeling, and resource vulnerabilities;

(2) Represent the least environmentally-impacting practicable alternative; and

(3) Be one of the following means, listed in descending order of preference:

a. Mechanical closed, or enviro, bucket dredge;

**NOTE:** All cross-references subject to verification/correction.

b. Mechanical clamshell dredge;

c. Mechanical open bucket dredge; or

d. Suction dredge.

Env-Wt 608.14 Sediment Transport and Disposal.

(a) The applicant shall include in the application an explanation of how the dredged material will be transported and off-loaded to minimize dispersion of sediments.

(b) The CFA report shall be considered when assessing the potential impact of proposed disposal locations and determining the least impacting disposal location. Site evaluation criteria developed for selection or designation of dredged material disposal sites, in accordance with 40 CFR 228 and EPA's ocean dumping program, described for Region I at https://www.epa.gov/ocean-dumping/managing-ocean-dumping-epa-region-1 shall be required and evaluated, as appropriate, for non-FNP requests to dump dredge material in state waters.

(c) Sediment disposal shall not negatively impact resource areas.

(d) Any unavoidable negative impacts from sediment disposal shall require compensatory mitigation.

(e) The primary acceptable means of disposal for uncontaminated sediments shall be for beneficial re-use, or the use of the dredged material for a resource-related purpose within the same resource system such as beach nourishment, dune restoration, and shoal creation associated with living shorelines.

(f) Near-shore disposal shall be considered beneficial re-use if it remains within the same general system or provides a direct public benefit to another resource or facility.

(g) If dredged materials will not be beneficially re-used, the upland disposal location shall be:

(1) Appropriate to the nature of the material; and

(2) Identified in the application.

(h) Contaminated sediment shall be disposed of at a facility authorized to accept such material.

(i) The applicant shall provide documentation that disposal sites will be managed appropriately, with disposal site marking buoys, inspectors, the use of sediment capping and dredge sequencing, and monitored (e.g., chemical and toxicity testing, benthic recovery) to minimize impacts associated with disposal of the dredge material.

PART Env-Wt 609 TIDAL BEACH MAINTENANCE AND STABILIZATION

Env-Wt 609.01 Tidal Beach Projects Not Requiring a Permit. The following tidal beach maintenance and stabilization projects shall be considered minimum impact and not require a permit under RSA 482-A:3, provided the conditions stated are met:

(a) Removal of seaweed, algae, or other debris from public tidal beaches, provided:

(1) All work is done:

a. By the state or local agency responsible for maintaining the beach, not by private land owners;

b. During seaweed removal season; and

c. During low tide;

(2) No work is done in the water; and

(3) No sand is removed, regraded, or recontoured, except as provided in (d), below;

(b) Removal of seaweed, algae, or other debris from public tidal beaches at times other than during seaweed removal season, provided:

(1) All conditions of (a) except for (a)(1)b. are met; and

(2) The agency responsible for the work provides written notice to the department not less than 48 hours prior to commencing the work to inform the department of when the work will be done.

(c) Removal of seaweed and other debris from public tidal beaches after an extraordinary seaweed event, provided:

(1) All work is done:

a. By the state or local agency responsible for maintaining the beach, not by private land owners; and

b. During low tide;

(2) No work is done in the water; and

(3) The agency responsible for maintaining the beach provides written notice to the department as much in advance of the work as is practical under the circumstances to inform the department of:

a. The date and location of the removal;

b. The identity of the person(s) who will be doing the work;

c. The method by which the seaweed and other debris will be removed; and

d. The location where the seaweed and other debris will be disposed; and

(4) No sand is removed, regraded, or recontoured except as provided in (d), below;

(d) The regrading and recontouring of public tidal beaches as necessary to maintain the integrity of seawalls and to insure the safety and protection of the public on beaches maintained by the state of New Hampshire department of natural and cultural resources (DNCR), provided:

(1) All work is done:

a. By DNCR employees or contractors; and

b. During low tide;

(2) No work is done in the water; and

(3) DNRC provides written notice to the department as much in advance of the work as is practical under the circumstances to inform the department of:

a. The date and location of the work;

b. The identity of the person(s) who will be doing the work; and

c. The method by which the beach will be regraded or recontoured, or both; and

(e) Placement of temporary snow fencing on public tidal beaches or sand dunes to enhance or direct natural sand accumulation, provided:

(1) All work is done by the state or municipal agency responsible for maintaining the beach or dunes; and

(2) Straight slat wooden fencing is used, except that the agency responsible for the work may request a waiver to use other material so long as no plastic construction fence or mesh is used due to the entrapment hazard it represents to wildlife.

**NOTE:** All cross-references subject to verification/correction.

Env-Wt 609.02 Project Classification. A project shall be classified as a major project if it:

(a) Occurs below the highest observable tide line; and

(b) Does not qualify as not requiring a permit as specified in Env-Wt 604.02.

Env-Wt 609.03 Construction of Private Tidal Beaches Prohibited. No new beach shall be constructed in or on the tidal shoreline or within the tidal buffer zone, whether by cutting through vegetation, replacing or covering natural material with sand fill, replacing or covering natural ground surface and vegetation with a constructed sand perched beach, changing contours by excavating the intertidal zone, shoreline, or tidal buffer zone, or any other means.

Env-Wt 609.04 Beach Nourishment.

(a) Beach nourishment shall be:

(1) Allowed only on publicly owned beaches; and

(2) Undertaken only by the state or local agency responsible for maintaining the beach.

(b) Proposed nourishment material shall be:

(1) Chosen based on compatibility with that of existing beach material for grain size, shape, and color; and

(2) If not virgin material, tested for contaminants as required by Env-Wt 608.12 prior to placement on the beach.

(c) The slope of the beach after beach nourishment shall mimic the natural beach profile.

Env-Wt 609.05 Plan Requirements. In addition to the plan requirements established in Env-Wt 311, plans for beach stabilization shall show the following:

(a) Access points for seaweed collection vehicles and equipment;

(b) Existing contours for the beach and proposed contours following nourishment for any beach filling activities that exceeds redistribution and regarding of existing beach sand;

(c) Means of transport of beach nourishment material and access points;

(d) A planting plan for native vegetation, if nourishment will require stabilization so as to transition into a fore dune of a sand dune complex; and

(e) Any existing habitat areas for threatened or endangered species, and the means by which nesting or other critical habitat areas that support the species will be segregated and protected from impacts.

PART Env-Wt 610 TIDAL SHORELINE STABILIZATION

Env-Wt 610.01 Tidal Shoreline Stabilization Requirements. Tidal shoreline stabilization projects shall:

(a) Maintain the natural process functions of the shoreline as the critical transition zone between the intertidal zone and upland tidal buffer zone/sand dune regimes;

(b) Include wildlife habitat while providing structural protection against coastal hazards;

(c) Be compatible with the existing natural land cover and its functions;

(d) Address the known causes of erosion; and

(e) Avoid adverse impacts to nearshore ecosystem processes and habitats.

Env-Wt 610.02 Hierarchy of Tidal Shoreline Stabilization Methods. Applications for tidal shoreline stabilization projects shall demonstrate that:

(a) The technique or combination of techniques chosen has the highest degree of long term lifespan of all alternatives based on best available scientific and engineering practices; and

(b) The proposed technique or combination of techniques address:

(1) Identifiable causes of erosion;

(2) The degree or extent of erosion;

(3) Relative exposure based on shoreline geometry, shore orientation, intensity of boat traffic, influence of adjacent structures, storm surge, and extreme precipitation events;

(4) Potential sea level rise; and

(5) Potential marsh migration as a result of sea level rise.

Env-Wt 610.03 Analysis of Existing Conditions Required. As part of an application to repair or rehabilitate an existing tidal shoreline stabilization structure, the engineer or qualified professional shall rate the condition of the existing structure and the need for repair based on the following:

(a) The degree of damage or extent of deterioration, as applicable, such as missing components, cracking, or weeping with erosion; and

(b) The ability of the structure to withstand coastal storm surge.

Env-Wt 610.04 Minimum Impact Tidal Shoreline Stabilization Projects. A shoreline stabilization project shall be classified as minimum impact if it consists only of in-kind maintenance, in-kind repair, or replacement in-kind of existing stabilization installations that are fully exposed at low tide, provided:

(a) There will be no change in the location, configuration, construction type, or dimensions of the installation;

(b) All work will be done at low tide when the work area is fully exposed;

(c) The existing installation has functioned as intended; and

(d) The applicant certifies in writing that each installation being maintained, repaired, or replaced in-kind is an existing legal structure as defined in Env-Wt 100.

Env-Wt 610.05 Tidal Shoreline Stabilization Projects Requiring Standard Permit. A shoreline stabilization project requires a standard permit if it:

(a) Is a bio-installation, such as living shorelines and oyster reefs, or an installation of armoring structures in any previously-undisturbed coastal lands or tidal wetlands;

(b) Represents an increase in hardening of the shoreline, such as by constructing a wall, installing rip-rap, converting a bio-installation to armoring, or increasing the dimensions of existing armoring; or

(c) Does not qualify as a minimum impact project under Env-Wt 607.04.

Env-Wt 610.06 Preferred Techniques for Tidal Shoreline Stabilization.

(a) The preferred technique for tidal shoreline stabilization shall be soft shoreline stabilization, including but not limited to the following:

(1) Soft vegetative bank stabilization such as living shorelines, including the restoration of natural habitats such as salt marshes and oyster reefs; and

(2) Bioengineered bank stabilization that use a combination of live vegetation, woody material, or geotextile matting with marsh planting to achieve a natural shoreline protection that supports biodiversity and ecosystem health.

(b) Preferred techniques shall be required if the project is to replace an existing stabilization structure that has not functioned as intended or is not an existing legal structure.

Env-Wt 610.07 Living Shoreline Plans. A living shoreline plan for tidal shoreline stabilization shall:

(a) Use native vegetation, oyster reefs, sand fill, and limited stone or wood as specified in Env-Wt 606.08 to provide shoreline stabilization and protection;

(b) Mimic the natural landscape to the greatest extent practicable;

(c) Maintain the shoreline's ability to absorb and mitigate storm impacts and adapt to the landward progression of the sea; and

(d) Provide habitat for wildlife and aquatic species.

Env-Wt 610.08 Use of Wood and Rock in Soft Tidal Shorelines. Large wood debris such as driftwood and natural rock that is comparable to naturally-occurring rock found in the vicinity of the project may be incorporated into a soft tidal shoreline stabilization design as matrix material for a bio-stabilization technique.

Env-Wt 610.09 Soft Stabilization Design Requirements. The applicant shall develop a living shorelines plan in accordance with "Guidance for Considering the Use of Living Shorelines", NOAA (2015), available as noted in Appendix B, and the following:

(a) Natural vegetation shall be left intact to the maximum extent practicable;

(b) If space and soil conditions allow, unstable banks shall be cut back to a flatter slope, seeded, and replanted with native, non-invasive trees and shrubs; and

(c) If practicable based on the location of the highest observable tide line, water turbulence, and soil conditions, the project shall incorporate adding vegetation to existing sand beaches or dunes or constructing vegetated sand dunes.

Env-Wt 610.10 Tidal Shoreline Stabilization using New Rip-Rap.

(a) The department shall not approve any tidal shoreline stabilization plan that proposes to install new rip-rap unless:

(1) The applicant demonstrates by clear and convincing evidence that:

a. Anticipated turbulence, flows, restricted space, fetch, or similar factors render soft stabilization methods physically impractical; and

b. Natural or naturalized soft shoreline stabilization on neighboring properties will not be damaged by the placement of the proposed rip-rap; or

(2) The rip-rap is a component, but is not the primary or dominant component, of a soft stabilization design.

**NOTE:** All cross-references subject to verification/correction.

(b) The applicant proposing to install new rip-rap shall include with the application:

(1) Evidence of erosion that cannot be stabilized with a soft stabilization design;

(2) A description of anticipated turbulence, flows, restricted space, fetch, or similar factors that render vegetative and diversion methods physically impractical;

(3) An assessment of the potential for the proposed rip-rap to erode the shoreline of up-current and down-current properties, based on an examination of the shoreline and modeling based on tides, average wave height and force, and the energy absorbtion or deflection ability of the proposed rip-rap;

(4) Specification of:

a. Minimum and maximum stone sizes;

b. Existing contours and final proposed contours;

c. The minimum rip-rap thickness and the maximum rip-rap thickness; and

d. The type and thickness of bedding for the stone;

(5) Cross-section and plan views of the proposed installation; and

(6) The relationship of the project to fixed points of reference, abutting properties, and features of the natural shoreline.

(c) In addition to plan requirements specified in Env-Wt 311, applications to use rip-rap adjacent to tidal water bodies shall:

(1) Include stamped engineering plans; and

(2) If the state holds fee simple ownership, a stamped survey showing the location of the mean high water tide line on the shoreline and the footprint of the proposed project.

Env-Wt 610.11 Repair of Existing Rip Rap.

(a) Existing rip-rap may be maintained in-kind, repaired in-kind, or replaced in-kind as a minimum impact tidal shoreline stabilization project only if the work meets the requirements of Env-Wt 606.04.

(b) The applicant shall provide the following with or as part of an application for any work that does not qualify under Env-Wt 606.04:

(1) A signed certification that the rip-rap that is the subject of the work is an existing legal structure; and

(2) The design information specified in Env-Wt 606.10(b)(2)-(6).

Env-Wt 610.12 Tidal Shoreline Stabilization Using Walls.

(a) Due to the loss of natural features, such as habitat, and the ability of the shoreline to move and adapt naturally to coastal hazard events that results from constructing a wall in tidal waters/wetlands, and due to the reflection and redirection of wave energy that can have a destructive effect on surrounding properties and ecology, the department shall approve the installation of a wall only when necessary to protect public infrastructure in situations where a softer stabilization technique can be shown by clear and convincing evidence to be impracticable.

(b) The following shall apply to any application to install a wall to stabilize a tidal shoreline:

(1) Walls shall be permitted only there is insufficient space to cut back slopes to eliminate the need for a wall;

**NOTE:** All cross-references subject to verification/correction.

(2) The applicant shall provide:

a. Cross-section and plan views of the proposed installation; and

b. Plans that clearly show the relationship of the project to fixed points of reference, abutting properties, and features of the natural shoreline;

(3) The face of a project shall be angular, not smooth, to minimize reflected wave energy;

(4) Fill shall be allowed only to the extent necessary to achieve structural stability;

(5) Weep holes shall be provided to allow seepage of groundwater and to promote slope stability;

(5) Walls shall:

a. Not reflect or re-direct currents or wave energy towards adjacent wetlands or structures, or otherwise contribute to erosion; and

b. Be concave on the seaward side to reflect wave energy where practicable.

PART Env-Wt 611 TIDAL BUFFER ZONE AND PROTECTED SHORELAND

Env-Wt 611.01 Applicability. This part shall apply to the tidal buffer zone established in RSA 482-A and to all protected shoreland in coastal areas established by RSA 483-B, hereinafter the protected tidal zone.

Env-Wt 611.02 Project Classifications.

(a) A major project shall be any dredging, filling, or construction activity, or any combination thereof, that is proposed to:

(1) Occur within 100 feet of the highest observable tide line (HOTL); and

(2) Alter any tidal shoreline bank, tidal flat, wetlands, surface water, or undeveloped uplands.

(b) A minor project shall be any dredging, filling, or construction activity, or any combination thereof, that:

(1) Involves work within 75 feet of a saltmarsh in the developed upland tidal buffer;

(2) Is not a major project; and

(3) Will disturb 3,000 square feet or more but less than 10,000 square feet in the developed upland tidal buffer.

(c) A minimum impact project shall be any dredging, filling, or construction activity, or any combination thereof, that:

(1) Is in previously-developed upland area;

(2) Is within 100 feet of the HOTL; and

(3) Will disturb less than 3,000 square feet.

Env-Wt 611.03 Projects in the Protected Tidal Zone that Do Not Require a Permit. The following activities may be undertaken in the protected tidal zone without first obtaining a permit under RSA 482-A:

(a) The maintenance, repair, or modification of an existing legal primary or accessory structure that does not:

(1) Increase or move the footprint or impervious area of the structure;

(2) Result in the alteration of previously-unaltered areas;

**NOTE:** All cross-references subject to verification/correction.

(3) Result in an increase in loading to an onsite sewage disposal system;

(4) Increase the number of residential units on the property; or

(5) Result in any dredging or filling within the protected tidal zone;

(b) Work done pursuant to an approved remediation plan that is prepared in response to any enforcement action against a property owner or contractor where the violator is directed by the department to remediate violations of:

(1) RSA 482-A or rules in subtitle Env-Wt, or both; or

(2) RSA 483-B or Env-Wq 1400, or both.

(c) Landscaping, gardening, or the construction of metal or wood stairs in the upland protected tidal zone, provided:

(1) The bottom of the stair structure lands on a beach above mean high tide; and

(2) No excavation is required;

(d) Trimming, pruning, and thinning of branches to the extent necessary to protect structures, maintain clearances, or maintain the ecological health of the planted area, provided the activity does not endanger the health of the plant; and

(e) Removal of dead, diseased, or unsafe trees, limbs, saplings, or shrubs that pose a hazard to structures or have the potential to cause personal injury, provided:

(1) The work is done in a way that:

a. Prevents damage to surrounding healthy trees, limbs, saplings, and shrubs;

b. Minimizes damage to ground cover;

c. Prevents soil erosion and sedimentation to the water body; and

d. Leaves all stumps intact; and

(2) The person who authorized the work bears the burden of proving, in any enforcement action for a violation of this rule, that the trees, limbs, saplings, or shrubs removed were in fact dead, diseased, or unsafe, where proof that removed trees, limbs, saplings, or shrubs were dead, diseased, or unsafe shall include, but not be limited to, the following:

a. Photographs of the property which clearly show the dead, diseased, or unsafe trees, limbs, saplings, and shrubs; and

b. Written certification signed by an individual with knowledge and experience in assessing tree health, such as a licensed forester, certified arborist, or licensed landscape architect, that the trees, limbs, saplings, and shrubs that were removed were dead, diseased, or unsafe, as applicable;

(f) Hand-pulling or use of hand tools to remove invasive species or other noxious or harmful plants such as poison ivy, including root systems, provided that any area exceeding 10 square feet left without vegetation shall be replanted with non-invasive, non-harmful species;

(g) Hand-removal or use of hand tools to remove rocks and stones beyond the 50-foot setback to the HOTL; and

(h) The placement or installation of readily removed items, such as picnic tables and lawn chairs.

Env-Wt 611.04 Design Standards. Proposed projects for the construction of structures within the protected tidal zone shall comply with the standards described in FEMA P-55, Coastal Construction Manual: Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas, 4th Edition (2011) and with local resiliency planning ordinances.

Env-Wt 611.05 Protected Tidal Zone Restrictions. The restrictions identified in RSA 483-B:9, II shall apply to the protected tidal zone.

Env-Wt 611.06 Maintenance of a Waterfront Buffer. The provisions of RSA 483-B:9, V(a) shall apply to the protected tidal zone within 50 feet of the HOTL.

Env-Wt 611.07 Accessory Structures. Accessory structures in the waterfront buffer shall comply with the applicable provisions of Env-Wq 1400.

Env-Wt 611.08 Maintenance of a Woodland Buffer. The provisions of RSA 483-B:9, V(b) shall apply to the protected tidal zone within 150 feet of the HOTL.

Env-Wt 611.09 Individual Sewage Disposal Systems. The provisions of RSA 483-B:9, V(c) shall apply to the protected tidal zone.

Env-Wt 611.10 Erosion and Siltation. The provisions of RSA 483-B:9, V(d) shall apply to the protected tidal zone.

Env-Wt 611.11 Minimum Lots and Residential Development. The provisions of RSA 483-B:9, V(e) shall apply to the protected tidal zone.

Env-Wt 611.12 Minimum Lots and Non-Residential Development. The provisions of RSA 483-B:9, V(f) shall apply to the protected tidal zone.

Env-Wt 611.13 Impervious Surfaces. The provisions of RSA 483-B:9, V(g) shall apply to the protected tidal zone.

Env-Wt 611.14 Rebuilding of Non-Conforming Structures.

(a) Primary nonconforming structures may be entirely demolished and reconstructed, with continued encroachment into the waterfront buffer, provided the replacement structure is located farther back from the reference line than the preexisting nonconforming structure.

(b) No alteration shall extend the structure closer to the public water between the primary building line and the reference line.

(c) The proposal or property shall be made more nearly conforming than the existing structure or the existing conditions of the property.

(d) Applicants rebuilding existing structures following storm damage shall acknowledge that continued reconstruction in high hazard zones may not be achievable in the future based on the actual extent of sea level rise, and that retreat may be necessary.

Env-Wt 611.15 Conversion of Decks and Porches Prohibited. No deck or porch located between the primary building line and the reference line shall be converted to become part of the primary living space.

Env-Wt 611.16 Slope Limitation for Structures. No structure shall be built on or into land in the protected tidal zone having greater than 25% slope.

**NOTE:** All cross-references subject to verification/correction.

Env-Wt 611.17 Plans and Other Information Required. The following plans and other information shall be submitted with applications for work within the protected tidal zone:

(a) Existing and proposed contours at 2-foot intervals measured from the HOTL;

(b) If any portion of the subject parcel is located in a regulatory floodplain, the location of the 100-year flood boundary and water elevation as shown on the effective FEMA Flood Insurance Rate Map;

(c) All other applicable local and state setbacks;

(d) The dimensions and locations of all:

(1) Existing and proposed structures;

(2) Existing and proposed impervious areas;

(3) Existing and proposed disturbed areas;

(4) Areas to remain in an unaltered state;

(5) Existing cleared areas, such as gardens, lawns, and paths;

(6) Proposed temporary impacts associated with completion of the project;

(e) Proposed methods of erosion and siltation controls, identified graphically and labeled on a plan, or otherwise annotated as needed for clarity;

(f) A plan of any planting(s) proposed in the waterfront buffer, showing the proposed location(s) and Latin names or common names of proposed species;

(g) If applicable, the location of an existing or proposed 6-foot-wide foot path to the waterbody or temporary access path;

(h) For any project proposing that the impervious area be at least 15% but not more than 20% within the protected tidal zone, a statement signed by the applicant certifying that the impervious area is not more than 20%;

(i) For any project proposing that the impervious area be greater than 20% within the protected tidal zone, plans for a stormwater management system that will infiltrate increased stormwater from development;

(j) For any project involving pervious surfaces, a plan with specifications of how those surfaces will be maintained; and

(k) All other relevant features necessary to clearly define both existing conditions and the proposed project.

PART Env-Wt 612 SAND DUNES

Env-Wt 612.01 Prohibited Impacts. No person shall undertake any regulated activities in any fore dune or back dune, due to the rarity, ecological significance, and critical functions of such areas in abating storm surge, accommodating sea level rise, and providing habitat, except as specifically allowed in this part.

Env-Wt 612.02 Project Classifications: Major Impact Projects.

(a) Any activity that would destroy, raze, deface, reduce, alter, build on, or remove any sand or vegetation from any sand dune shall be a major impact project unless it qualifies as a minimum impact project as specified in Env-Wt 609.03 or a project that does not require a permit as specified in Env-Wt 609.04.

(b) Major projects shall be subject to the mitigation requirements specified in Env-Wt 800.

(c) Major projects shall include, but are not limited to:

(1) Development of an undeveloped in-fill lot located contiguous to the fore dune;

(2) Removal with heavy equipment or other tracked or wheeled machinery of a portion of a formed or vegetated sand dune that has encroached on an existing dwelling to a degree that cannot be remedied by use of hand tools;

(3) Changes to the morphology of an existing or forming dune or removal of established dune vegetation;

(4) Previously developed in-fill lots found to have threatened or endangered species located on the lot; and

(5) Any other proposal to alter by regulated activity any area of fore dune or back dune.

Env-Wt 612.03 Project Classifications: Minimum Impact Projects. The following projects shall qualify as minimum impact projects:

(a) Dune restoration projects that meet the requirements for restoration under Env-Wt 407.04; and

(b) Structure construction or other landscape alteration of previously-developed in-fill lots located in the dune slack area on which there are no threatened or endangered species.

Env-Wt 612.04 Project Classifications: Projects That Do Not Require a Permit. The following projects and activities may be undertaken without first obtaining a permit, provided the conditions stated are met:

(a) Sand that blows or drifts onto any lawn, driveway, walkway, parking or storage area, or boat ramp, or that blows or drifts in, on, or around buildings or other structures may be removed by the person who owns the affected property, as provided by RSA 482-A:3, VII. Such work shall be subject to the following limitations:

(1) Work shall be done without the use of wheeled or tracked machinery; and

(2) Sand that has accumulated against the side of buildings and other structures between the structure and a sand dune shall be removed no closer than 36 inches to the angle of repose of the slope of the adjacent dune; and

(b) As provided by RSA 482-A:3, IX, operation of any of the following:

(1) Police vehicles or fire vehicles;

(2) Vehicles used in cases of emergency;

(3) Authorized maintenance vehicles when performing maintenance duties; and

(4) Vehicles used by commercial fishermen or commercial lobstermen when engaged in activities related to fishing or lobstering.

Env-Wt 612.05 Pre-Application Assessment.

(a) As provided in RSA 482-A:3, VII, the department shall provide a pre-application assessment of any lot of record located in sand dunes upon request of the property owner.

(b) The purpose of a pre-application assessment is to provide the property owner with information regarding what requirements apply to the property, including reviewing the property for the presence of threatened or endangered dune vegetation or other exemplary natural community features that may require protection, relocation, or mitigation, or any combination thereof.

(c) To request a pre-application assessment, the property owner shall submit to the department a written request for an assessment that includes:

(1) The property owner's name and contact information;

(2) The street address and tax map/lot of the property; and

(3) Any questions the property owner has about the applicability of specific requirements.

(d) The department shall undertake the pre-application assessment by reviewing available aerial photography, orthophotography, and GIS data. If the available information is not sufficient to finalize the assessment, the department shall conduct a site inspection.

(e) The department shall provide the results of the pre-application assessment to the property owner in writing.

(f) For major impact projects in sand dunes that require mitigation, the pre-application assessment shall not replace the formal pre-application meeting to discuss compensatory mitigation required by Env-Wt 301.02.

Env-Wt 612.06 Design and Plan Requirements.

(a) No structures shall be proposed in sand dunes except for structures on in-fill lots that will be located on the landward side of the fore dune.

(b) Designs for projects in sand dunes shall comply with the following:

(1) The standards described in FEMA P-55, Coastal Construction Manual: Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas, 4th Edition (2011), available as noted in Appendix B;

(2) All local and regional resiliency planning ordinances and guidelines; and

(3) All applicable local building ordinances.

(c) The applicant for a permit for a construction project in sand dunes shall provide the following information on the plans submitted pursuant to Env-Wt 311.06:

(1) If any portion of the property is located in the 100-year floodplain, the location of the 100-year floodplain boundary and water elevation as shown on the effective FEMA Flood Insurance Rate Map;

(2) The location of the 2.0-foot elevation contour as measured from mean sea level;

(3) The location, with dimensions, of:

a. All impervious areas;

b. Areas of existing vegetation, with the vegetation identified on the plan;

c. Each rare, threatened, or endangered plant species as reported by NH Natural Heritage Bureau;

d. All disturbed areas, including existing lawn, gardens, and paths;

e. All areas to remain in an unaltered state;

f. All proposed temporary impacts associated with completion of the project, with a description of each temporary impact;

g. Proposed methods of erosion and siltation controls indicated graphically and labeled or otherwise annotated as needed for clarity;

h. All proposed plantings, including Latin names or common names of proposed species; and

i. All other relevant features necessary to clearly define both existing conditions and the proposed project.

(d) The applicant for a permit for a construction project in sand dunes shall submit with the application a completed impervious coverage worksheet that includes:

(1) The name of the person who completed the worksheet;

(2) The date of the plan on which the worksheet is based;

(3) Square feet of the lot within the sand dune;

(4) Square feet and percentage of the lot area constituting existing impervious surface(s) within the sand dune; and

(5) Total percentage of sand dune area within the lot that will be impervious upon completion of the project.

(e) For any project proposing an impervious area on an in-fill lot of at least 15% but not more than 20%, the applicant shall certify in writing that the impervious area is not more than 20%.

(f) For any project proposing an impervious area on an in-fill lot of greater than 20%, the applicant shall submit plans for a stormwater management system that will infiltrate the increased stormwater.

(g) For any project proposing pervious surfaces, the applicant shall submit a plan and specifications for long-term maintenance of the pervious surfaces.

Env-Wt 612.07 Additional Requirements for Projects in Sand Dunes.

(a) Work on or in sand dunes shall be limited to existing developed lots and in-fill lots.

(b) Natural dune sand and dune vegetation shall be removed only for the building footprint and driveway area.

(c) Structures proposed to be constructed in or on sand dunes shall not change wind circulation patterns such that more sand is eroded.

Env-Wt 612.08 Conditions Applicable to All Projects in Sand Dunes. The following conditions shall apply to all projects in sand dunes:

(a) The project shall not disturb any sand dune vegetation listed as a threatened or endangered species by the NH Natural Heritage Bureau;

(b) Work shall be done in a time and manner so as to not disturb migratory waterfowl breeding and nesting areas;

(c) Appropriate siltation and erosion controls shall be in place prior to construction, shall be maintained during construction, and shall remain until the area is stabilized;

(d) Temporary siltation and erosion controls shall be removed once the area has been stabilized;

(e) Any American Beachgrass (Ammophila breviligulata) that would be disturbed by a project shall be removed and replanted elsewhere on site according to approved plans;

(f) Only indigenous native plant species shall be planted on the property;

(g) No non-native ornamental plants shall be introduced to or used on the property; and

(h) The project shall not disturb any sand dune vegetation growing on adjacent properties.

**NOTE:** All cross-references subject to verification/correction.

## APPENDIX A: STATE/FEDERAL STATUTES & FEDERAL REGULATIONS IMPLEMENTED [TO BE PROVIDED]

## APPENDIX B: INCORPORATED REFERENCES

| Rule (Env-Wt) | Name (Date) | Available from |
|---|---|---|
| 605.04(b)(2)<br>610.09 | Guidance for Considering the Use of Living Shorelines (2015) | NOAA<br>Download at no charge from:<br>http://www.habitat.noaa.gov/pdf/noaa_guidance_for_considering_the_use_of_living_shorelines_2015.pdf |
| 611.04<br>612.06(b)(1) | FEMA P-55, Coastal Construction Manual: Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas, 4th Edition (2011) | FEMA<br><br>Download or order at no charge from:<br>https://www.fema.gov/media-library/assets/documents/3293 |



**NOTE:** All cross-references subject to verification/correction.